

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-12. (canceled)

13. (currently amended) An isolated polypeptide comprising the amino acid sequence set forth in SEQ ID NO: 8 or SEQ ID NO: 10.

14. (currently amended) An isolated polypeptide comprising ~~the~~ an amino acid sequence selected from the group consisting of:

(a) a mature amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10, comprising a mature amino terminus at residue 1;

(b) ~~(a) the a~~ a mature amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10, comprising a mature amino terminus at residue 1, optionally further comprising an amino-terminal methionine;

(c) ~~(b)~~ an amino acid sequence of an ortholog of a protein comprising a sequence of SEQ ID NO: 8 or SEQ ID NO: 10, wherein the encoded polypeptide has an activity of the polypeptide the protein having the amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10;

(d) ~~(c)~~ an amino acid sequence that is at least about 70 percent identical to the amino acid sequence of SEQ ID NO: 8 or SEQ ID NO: 10, wherein the polypeptide has an activity of the polypeptide a protein having the amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10;

(e) ~~(d)~~ an amino acid sequence that is a fragment of the amino acid sequence set forth in SEQ ID NO: 8 or SEQ ID NO: 10 comprising at least about 25 amino acid residues, wherein the polypeptide has an activity of the polypeptide a protein having the amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10; and

(f) ~~(e)~~ an amino acid sequence for of an allelic variant or splice variant of either the amino acid sequence as set forth in SEQ ID NO: 8, [or] SEQ ID NO: 10, or at least any one of (a)-(e) (a)-(d), wherein the polypeptide has an activity of the polypeptide a protein having the amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10.

15. (currently amended) An isolated polypeptide comprising the amino acid sequence selected from the group consisting of:

(a) the amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10 ~~with comprising at least one to twenty~~ conservative amino acid substitutions, wherein the polypeptide has an activity of ~~the polypeptide~~ a protein having the amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10;

(b) the amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10 ~~with comprising at least one to twenty~~ amino acid insertions, wherein the polypeptide has an activity of ~~the polypeptide~~ a protein having the amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10;

(c) the amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10 ~~with at least one to twenty~~ amino acid deletions, wherein the polypeptide has an activity of ~~the polypeptide~~ a protein having the amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10;

(d) the amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10 ~~which that~~ has a ~~C- and/or C-terminal truncation, an N-terminal truncation, or C- and N-terminal truncations~~, wherein the polypeptide has an activity of ~~the polypeptide~~ a protein having the amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10; and

(e) the amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10, ~~with comprising at least one to twenty~~ modifications selected from the group consisting of ~~an amino acid substitutions~~ substitution, an amino acid ~~insertions~~ insertion, ~~an amino acid deletions~~ deletion, a C-terminal truncation, and ~~an~~ N-terminal truncation, wherein the polypeptide has an activity of ~~the polypeptide~~ a protein having the amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10.

16. (canceled)

17. (original) The isolated polypeptide according to claim 14 wherein the percent identity is determined using a computer program selected from the group consisting of GAP, BLASTP, BLASTN, FASTA, BLASTA, BLASTX, BestFit, and the Smith-Waterman algorithm.

18-39. (canceled)

40. (currently amended) A composition comprising the isolated polypeptide of any one of claims 13, 14, or ~~15~~ 15, and a pharmaceutically acceptable formulation agent.

41. (original) The composition of claim 40 wherein the pharmaceutically acceptable formulation agent is a carrier, adjuvant, solubilizer, stabilizer, or anti-oxidant.

42. (currently amended) The composition of claim 40 wherein the isolated polypeptide comprises the mature amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10.

43. (currently amended) A polypeptide comprising a derivative of the isolated polypeptide of any one of claims 13, 14, or 15.

44. (original) The polypeptide of claim 43 which is covalently modified with a water-soluble polymer.

45. (currently amended) The polypeptide of claim 44 wherein the water-soluble polymer is selected from the group consisting of polyethylene glycol, monomethoxy-polyethylene glycol, dextran, cellulose, poly-(N-vinyl pyrrolidone), polyethylene glycol, propylene glycol homopolymers, polypropylene oxide/ethylene oxide co-polymers, polyoxyethylated polyols, and polyvinyl alcohol.

46-48. (canceled)

49. (currently amended) A fusion polypeptide comprising the isolated polypeptide of any one of claims 13, 14, or 15 fused to a heterologous ~~amino acid sequence~~ peptide.

50. (original) The fusion polypeptide of claim 49 wherein the heterologous amino acid sequence is an IgG constant domain or fragment thereof.

51-63. (canceled)

64. (new) A polypeptide produced by a process comprising culturing a host cell comprising a nucleic acid encoding the polypeptide under suitable conditions to express the polypeptide, wherein the nucleic acid comprises a nucleotide sequence selected from the group consisting of:

- (a) a nucleotide sequence as set forth in SEQ ID NO: 7 or SEQ ID NO: 9;
- (b) a nucleotide sequence encoding a polypeptide having the amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10; and
- (c) a nucleotide sequence of a hybridizable polynucleotide that hybridizes under moderately stringent conditions to the complement of a polynucleotide comprising the nucleotide sequence of (a) or (b), wherein the hybridizable polynucleotide encodes a polypeptide that has an activity of a protein having the amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10 and further wherein said moderately stringent conditions comprise 0.015M NaCl, and 0.0015M sodium citrate at 50°C.

65. (new) A polypeptide produced by a process comprising culturing a host cell comprising a nucleic acid encoding the polypeptide under suitable conditions to express the polypeptide, wherein the nucleic acid comprises a nucleotide sequence selected from the group consisting of:

(a) a nucleotide sequence encoding a polypeptide having an amino acid sequence that is at least 70 percent identical to the amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10, wherein the polypeptide has an activity of a protein having the amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10;

(b) a nucleotide sequence that is an allelic variant or splice variant of the polynucleotide having a nucleotide sequence as set forth in SEQ ID NO: 7 or SEQ ID NO: 9, wherein the allelic variant or splice variant encodes a polypeptide that has an activity of a protein having the amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10;

(c) a nucleotide sequence comprising a portion of the nucleotide sequence of SEQ ID NO: 7 or SEQ ID NO: 9, the nucleotide sequence of (a), or the nucleotide sequence of (b) encoding a polypeptide of at least 25 amino acid residues, wherein the polypeptide has an activity of a protein having the amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10;

(d) a nucleotide sequence of a hybridizable polynucleotide that hybridizes under moderately stringent conditions to the complement of a polynucleotide comprising the nucleotide sequence of (a)-(c), wherein the hybridizable polynucleotide encodes a polypeptide that has an activity of a protein having the amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10 and further wherein said moderately stringent conditions comprise 0.015M NaCl and 0.0015M sodium citrate at 50°C; and

(e) a nucleotide sequence comprising at least 16 contiguous nucleotides of the nucleotide sequence set forth in SEQ ID NO: 7, SEQ ID NO: 9, or (a)-(d).

66. (new) A polypeptide produced by a process comprising culturing a host cell comprising a nucleic acid encoding the polypeptide under suitable conditions to express the polypeptide, wherein the nucleic acid comprises a nucleotide sequence selected from the group consisting of:

(a) a nucleotide sequence encoding a polypeptide comprising an amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10 with one to twenty conservative amino acid substitutions, wherein the polypeptide has an activity of a protein having the amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10;

(b) a nucleotide sequence encoding a polypeptide comprising an amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10 with one to twenty amino acid insertions, wherein the polypeptide has an activity of a protein having the amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10;

(c) a nucleotide sequence encoding a polypeptide comprising an amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10 with one to twenty amino acid deletions, wherein the polypeptide has an activity of a protein having the amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10;

(d) a nucleotide sequence encoding a polypeptide as set forth in SEQ ID NO: 8 or SEQ ID NO: 10, which has a C-terminal truncation, an N-terminal truncation, or C- and N-terminal truncations, wherein the polypeptide has an activity of a protein having the amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10;

(e) a nucleotide sequence encoding a polypeptide as set forth in SEQ ID NO: 8 or SEQ ID NO: 10 with one to twenty modifications selected from the group consisting of an amino acid substitution, an amino acid insertion, an amino acid deletion, a C-terminal truncation, and an N-terminal truncation, wherein the polypeptide has an activity of a protein having the amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10;

(f) a nucleotide sequence comprised by a hybridizable polynucleotide that hybridizes under moderately stringent conditions to the complement of a polynucleotide comprising the nucleotide sequence of any of (a)-(e), wherein the hybridizable polynucleotide encodes a polypeptide that has an activity of a protein having the amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10 and wherein the moderately stringent conditions comprise 0.015M NaCl and 0.0015M sodium citrate at 50°C; and

(g) a nucleotide sequence of (a)-(e) comprising a fragment of at least 16 nucleotides.

67. (new) An isolated polypeptide encoded by the nucleotide sequence selected from the group consisting of:

- (a) a nucleotide sequence as set forth in SEQ ID NO: 7 or SEQ ID NO: 9;
- (b) a nucleotide sequence encoding a polypeptide having the amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10; and
- (c) a nucleotide sequence of a hybridizable polynucleotide that hybridizes under moderately stringent conditions to the complement of a polynucleotide comprising the nucleotide sequence of (a) or (b), wherein the hybridizable polynucleotide encodes a polypeptide that has an activity of a protein having the amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10 and further wherein said moderately stringent conditions comprise 0.015M NaCl and 0.0015M sodium citrate at 50°C.

68. (new) An isolated polypeptide encoded by the nucleotide sequence selected from the group consisting of:

(a) a nucleotide sequence encoding a polypeptide having an amino acid sequence that is at least 70 percent identical to the amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10, wherein the polypeptide has an activity of a protein having the amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10;

(b) a nucleotide sequence that is an allelic variant or splice variant of the polynucleotide having a nucleotide sequence as set forth in SEQ ID NO: 7 or SEQ ID NO: 9, wherein the allelic variant or splice variant encodes a polypeptide that has an activity of a protein having the amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10;

(c) a nucleotide sequence comprising a portion of the nucleotide sequence of SEQ ID NO: 7 or SEQ ID NO: 9, the nucleotide sequence of (a), or the nucleotide sequence of (b) encoding a polypeptide of at least 25 amino acid residues, wherein the polypeptide has an activity of a protein having the amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10;

(d) a nucleotide sequence of a hybridizable polynucleotide that hybridizes under moderately stringent conditions to the complement of a polynucleotide comprising the nucleotide sequence of (a)-(c), wherein the hybridizable polynucleotide encodes a polypeptide that has an activity of a protein having the amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10 and further wherein said moderately stringent conditions comprise 0.015M NaCl and 0.0015M sodium citrate at 50°C; and

(e) a nucleotide sequence comprising at least 16 contiguous nucleotides of the nucleotide sequence set forth in SEQ ID NO: 7, SEQ ID NO: 9, or (a)-(d).

69. (new) An isolated polypeptide encoded by the nucleotide sequence selected from the group consisting of:

(a) a nucleotide sequence encoding a polypeptide comprising an amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10 with one to twenty conservative amino acid substitutions, wherein the polypeptide has an activity of a protein having the amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10;

(b) a nucleotide sequence encoding a polypeptide comprising an amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10 with one to twenty amino acid insertions, wherein the polypeptide has an activity of a protein having the amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10;

(c) a nucleotide sequence encoding a polypeptide comprising an amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10 with one to twenty amino acid deletions, wherein the polypeptide has an activity of a protein having the amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10;

(d) a nucleotide sequence encoding a polypeptide as set forth in SEQ ID NO: 8 or SEQ ID NO: 10 which has a C-terminal truncation, an N-terminal truncation, or C- and N-terminal truncations, wherein the polypeptide has an activity of a protein having the amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10;

(e) a nucleotide sequence encoding a polypeptide as set forth in SEQ ID NO: 8 or SEQ ID NO: 10 with one to twenty modifications selected from the group consisting of an amino acid substitution, an amino acid insertion, an amino acid deletion, a C-terminal truncation, and an N-terminal truncation, wherein the polypeptide has an activity of a protein having the amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10;

(f) a nucleotide sequence comprised by a hybridizable polynucleotide that hybridizes under moderately stringent conditions to the complement of a polynucleotide comprising the nucleotide sequence of any of (a)-(e), wherein the hybridizable polynucleotide encodes a polypeptide that has an activity of a protein having the amino acid sequence as set forth in SEQ ID NO: 8 or SEQ ID NO: 10 and wherein the moderately stringent conditions comprise 0.015M NaCl, and 0.0015M sodium citrate at 50°C; and

(g) a nucleotide sequence of (a)-(e) comprising a fragment of at least 16 nucleotides.